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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,876	12/11/2001	Zheng Chen	7016.02.01	2359

7590

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EXAMINER

NGUYEN, DANNY

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/014,876

Applicant(s)

CHEN, ZHENG

Examiner

Danny Nguyen

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 5-13, 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishino et al. (USPN 4,562,511).

Regarding to claim 1, Nishino et al. disclose a double layer capacitor (fig. 10) comprises a cathode and an anode coating of amorphous metal oxide (such as a pairs of electrodes 23 which is coating of nickel metal, see col. 7, lines 60-63), a separator (the electrolyte soaked separator 19) containing an electrolyte disposed between the cathode and anode, a conductive rubber layer (such as conductive elastomer13) disposed on the exterior surface of each of the cathode and anode, first and second current collectors ( a pair of current collectors 18 shown in fig. 10) disposed, respectively, adjacent the outer surfaces of the conducting rubber layers, and a metallic coating (such as layer 22 shown in fig. 10) interposed between each the rubber layer and its adjacent current collector to reduce the contact resistance in the double-layer capacitor (see col. 9, lines 50-51).

Regarding to claims 2, 5, 6, 13, 15,19, Nishino et al. disclose the metallic coating is approximately 0.0025 to 0.1 mm (col. 15, lines 32-33) and the metallic coating is selected from aluminum (see col. 19, lines 15-16).

Regarding to claims 9, 12, 16, 17, Nishino et al. disclose a plurality of stacked capacitor cells (see fig. 24), each cell (such as cell 40) including a pair of electrodes (a pair of electrodes 37) coated with a amorphous metal oxide (such as aluminum, col. 19, lines 10-16) and being separated by an electrolyte soaked layer (an electrolyte soaked separator 39), the stack of cells having first and second end surfaces (the surfaces of the pair of the electrodes 37), a conductive rubber layer (13), a pair of rubber end layers (each electrode 37 having a conducting elastomer 13 shown in fig. 7) covering respectively the first and second end surfaces of the capacitor cells disposed on the exterior surface of each of the cathode and anode, first and second current collectors (a pair of current collectors 18 shown in fig. 10) disposed, respectively, approximately adjacent the outer surfaces of the conducting rubber layers, and a metallic coating (such as layer 22 shown in fig. 10) interposed between each the rubber layer and its adjacent current collector to reduce the contact resistance in the double-layer capacitor (see col. 9, lines 50-51).

Regarding to claim 7, 8, 10, 11, 18, Nishino et al. disclose each cell comprises a liquid electrolyte layer (39) which sulfuric acid (col. 2, lines 9-10).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 3, 4, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishino et al. in view of Bai et al. (USPN 5,872,698). Nishino et al. disclose all limitations of claims 1 and 16 except for using the amorphous hydrated ruthenium oxide to coat the electrode. Bai et al. discloses electrodes (22 and 42) coated with the amorphous hydrated ruthenium oxide. It would have been obvious to one having skill in the art to modify the capacitor of Nishino et al. with a amorphous hydrated ruthenium oxide because it provides relatively long life and a high power (Bai et al., col. 1, lines 25-29).

### ***Conclusion***

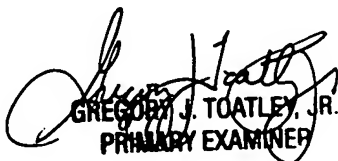
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Nguyen whose telephone number is (703)-305-5988. The examiner can normally be reached on Mon to Fri 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (703)-308-3119. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9318 for regular communications and (703)-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

DN

DN  
June 26, 2003

  
GREGORY J. TOATLEY, JR.  
PRIMARY EXAMINER